UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/754,483	01/09/2004	Kevin Conley	SDK1P017/503	6185

22434   7590   04/27/2007
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EXAMINER
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ART UNIT	PAPER NUMBER
2185	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/27/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

	Application No.	Applicant(s)
Office Action Summary	10/754,483	CONLEY ET AL.
	Examiner	Art Unit	
	Yaima Campos	2185	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *09 February 2007*.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-35* is/are pending in the application.

  4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-35* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

  a) ☐ All b) ☐ Some * c) ☐ None of:

  1. ☐ Certified copies of the priority documents have been received.

  2. ☐ Certified copies of the priority documents have been received in Application No. _____.

  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

  * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1.   The instant application having Application No. 10/754,483 has a total of 35 claims

pending in the application; there are 5 independent claims and 30 dependent claims, all of which

are ready for examination by the examiner. Claims 1-35 are pending in the instant Application.

Continued Examination Under 37 CFR 1.114

2.   A request for continued examination under 37 CFR 1.114, including the fee set forth in

37 CFR 1.17(e), was filed in this application after final rejection. Since this application is

eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e)

has been timely paid, the finality of the previous Office action has been withdrawn pursuant to

37 CFR 1.114. Applicant's submission filed on February 9, 2007 has been entered.

REJECTIONS BASED ON PRIOR ART

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

4.   **Claims 1-35** are rejected under 35 U.S.C. 103(a) as being unpatentable over Suda (US

2004/0123059) in view of Kim et al. (US 2004/0123059).

5.   As per **claim 1**, Suda discloses "A method for reading data from a memory card that

provides non-volatile data storage," as **["the present invention relates to a memory card**

authentication system, a memory card host device, a memory card, a storage area

switching method, and a storage area switching program, which are capable of switching

plural storage areas" (Page 1, paragraph 0003)]

"said method comprising: (a) accessing volume information stored in a first volume of non-

volatile data storage of the memory card; **"It is possible to allow the memory card host device**

1 to execute a procedure for reading out internal register values of the memory card and a

procedure for judging whether or not the memory card has plural storage areas by mean

of reading out the storage switching program form the program storage device" (Page 2,

Paragraph 0027) and "at least one internal register 12a with a flag indicating the quantity

of the storage areas added to a reserved area thereof" (Page 2, Paragraph 0028)]. Applicant

should note that as the "internal register 18" stores the number of areas inside a memory card,

this number of areas corresponds to the claimed "volume information." The number of areas

inside a memory card represents the number of volumes inside a memory card, and therefore,

represents "volume information." Furthermore, Suda discloses ["**memory card 3 in which**

plural storage areas 11a, 11b, 11c and 11d include internal registers 12a, 12b, 12c and 12d,

respectively" (Page 4, Par. 0051) wherein "In the memory card 3 shown in Fig. 1, a flag

indicating 4 is set to each of the third bit strings of the internal registers 12a, 12b, 12c, and

12d when the memory card 3 has four storage areas" (Page 3, Par. 0039). See (Figures 1

and 4A-4B and related text)]. Applicant should note that Examiner interprets the storage area

comprising both "first storage area 11a" and "first internal register 12a" within memory card 3

shown in Figures 1 and 4a-4b, as the claimed "first volume." Therefore, as Suda stores volume

information indicating the number of storage areas in internal register 12a and this internal

registers are part of the claimed first volume, Suda discloses "accessing volume information

stored in a first volume of non-volatile data storage."

(b) determining whether one or multiple volumes are present on the memory card based on the

volume information;" [With respect to this limitation, Suda discloses that "the memory card

host device 1 includes a plural area authentication module 21 for judging whether or not a

memory card subject to exchanging information has plural storage areas therein" (Figure 1

and Page 2, paragraph 0027, lines 1-4)]

"(c) operating the memory card as providing only the first volume when said determining (b)

determines that one volume is present on the memory card, the non-volatile data storage of the

memory card being assigned to the one volume;" [With respect to this limitation, Suda

discloses "where a judgment is made that there is only a single storage area, then normal

processing takes place" (Pages 2-3, paragraph 0033, lines 10-11) and explains "in a memory

card host device which cannot perform the above-described processing, the memory card

remains in the state as shown in Fig. 4A when the power supply is turned on. Accordingly,

such a memory card host device handles the memory card as the memory card having only

the first storage area 11a" (Page 4, Par. 0050); thereby, operating the memory card as

having a single volume]

"and (d) operating the memory card as providing a plurality of volumes when said determining

(b) determines that multiple volumes are present on the memory card, one of the plurality of

volumes being the first volume, and the non-volatile data storage being divided amongst the

plurality of volumes" [Suda discloses this limitation as when judgment determines that a

plurality of storage areas exist, then "the memory card switches storage areas so as to refer

to a desired storage area" (Page 3, paragraph 0034, lines 1-3) and explains that "when the area has changed normally," then "data processing of the memory card by the memory card host device is performed" (Page 3, paragraph 0035, lines 8-10); thereby, operating the memory card as having a plurality of volumes].

To further detail the claimed limitations of "(c) operating the memory card as providing only the first volume when said determining (b) determines that one volume is present on the memory card, the non-volatile data storage of the memory card being assigned to the one volume;" and "and (d) operating the memory card as providing a plurality of volumes when said determining (b) determines that multiple volumes are present on the memory card, one of the plurality of volumes being the first volume, and the non-volatile data storage being divided amongst the plurality of volumes," Kim discloses ["Optionally, the main body 10 further comprises a mode selection switch 15a. Using the mode selection switch 15a, one mode is selected from a single mode and a separate mode. When the single mode is selected, the flash memory card 16a is combined with the flash memory 11a, and the combined memories of the flash memory card 16a and flash memory 11a are recognized as a single drive. Alternatively, when the separate mode is selected, the flash memory card 16a is separated from the flash memory 11a, the flash memory card 16a and the flash memory 11a are respectively recognized as individual drives. For example, in case the flash memory 11a of the main body 10 is set as a D drive by the host computer, when the single mode is selected, the flash memory card 16a is set as the same D drive, thereby extending the capacity of the D drive. On the other hand, at this time, when the separate mode is

selected, the flash memory card 16a is set as another drive different from the D drive of the flash memory 11a, such as an E drive" (Page 3, Par. 0043-0044)].

Suda (US 2004/0123059) and Kim et al. (US 2004/0123059) are analogous art because they are from the same field of endeavor of memory access and control.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify the memory card as described by Suda and have and provided an extended flash card in which in single mode, both flash cards are seen as a single drive and in separate mode, each flash card is seen as separate drives as taught by Kim; thereby corresponding to the claimed single volume and plurality of volumes.

The motivation for doing so would have been because Kim discloses ["it is an object of the present invention to provide a portable flash memory which is simply connected to a USB port of a host computer so as to record and erase data, thereby being easy to extend in its memory capacity... to provide a portable flash memory with extended memory capacity in which an extended flash memory and a main flash memory are recognized as a single drive or as individual drives" (Page 1, Pars. 0007-008)].

Therefore, it would have been obvious to combine Suda (US 2004/0123059) with Kim et al. (US 2004/0123059) for the benefit of creating a method for reading data from a memory card to obtain the invention as specified in claim 1.

6.   As per **claim 2 and 21**, the combination of Suda and Kim discloses "A method as recited in claims 1 and 20," **[See rejection to claim 1 above and rejection to claim 20 bellow]** "wherein the memory card includes a switch that has a plurality of switch positions," **[With respect to this limitation, Suda discloses "a large-capacity memory card which is arranged**

to switch plural storage areas with the use of mechanical switches provided on a housing"

(Page 5, paragraph 0068 and paragraph 0069 (*see bellow*))] "and wherein said operating (d)

includes at least: (d1) determining a switch position for the switch; and (d2) selectively enabling

one of the plurality of volumes based on the switch position" [Suda discloses this limitation as

"It is possible to select any one of the storage areas 11a and 11b of the memory card 3 by

use of the mechanical switches 16a and 16b provided on the housing of the memory card 3.

For example, when the mechanical switches 16a and 16b are set to positions marked as

"1", the controller 10 reflects the state of the switches to the first internal register 12a,

thereby allowing a memory card host device to handle the first storage area 11a. Similarly,

when the mechanical switches 16a and 16b are set to positions marked as "2", the

controller 10 reflects the state of the switches to the internal register 12a, thereby allowing

the memory card host device to handle the second storage area 11b. Although FIG. 7

schematically shows the single internal register 12a, it is acceptable if the memory card 3

includes the plural internal registers 12a, 12b, 12c, and 12d for the respective plural

storage areas as shown in FIG. 1. Alternatively, it is also acceptable that the memory card 3

includes the internal register 18 for the plural storage areas as shown in FIG. 3" (Page 5,

paragraph 0069)]. See Kim [(Page 3, Par. 0043-0044 and Figure 1 and related text)].

7.   As per **claims 3 and 4**, the combination of Suda and Kim discloses "A method as recited

in claim 2," [See rejection to claim 2 above] "wherein the switch has at least a first position and

a second position, and wherein said operating (d) further includes at least:" [See rejection to

claim 2 above] "(d3) imposing an address offset when the switch is in the second position;

wherein the address offset enables the memory card to provide more data storage capacity than

available with a file system using 16-bit addressing" [**Suda discloses this concept as "it is**

possible to maintain compatibility with a conventional memory card host device by setting

the storage area having the file system that can be controlled by the conventional memory

card host device as the storage area accessible when the power supply is turned on.

Regarding the other storage areas, it is possible to moderate limitations of the storage

capacities by changing the file systems thereof into file systems adopting new methods"

(Page 5, paragraph 0066). Suda also explains that the size of storage areas "does not exceed

the marginal capacity which can be handled by using a single file system. For example,

when the FAT 16 is used as the file system, the marginal capacity is equal to 2 gigabytes"

(Page 2, paragraph 0028, lines 14-17) and that "a conventional command length can only

express an address up to the second storage area 11b. However, with the use of the address

expressed with blocks enables expression of a large-capacity address" (Figure 5 and Page 4,

paragraph 0057, lines 17-20)].

8.   As per **claim 5**, the combination of Suda and Kim discloses "A method as recited in

claim 2, wherein the switch has at least a first position and a second position," [**See rejection to**

claim 2 above] "wherein, when the switch position is in the first position and the memory card is

operated as providing the plurality of volumes, the first volume of the non-volatile data storage is

accessed, and wherein, when the switch position is in the second position and the memory card is

operated as providing the plurality of volumes, a second volume of the non-volatile data storage

is accessed" [**With respect to this limitation, Suda discloses that "It is possible to select any**

one of the storage areas 11a and 11b of the memory card 3 by use of the mechanical

switches 16a and 16b provided on the housing of the memory card 3. For example, when

the mechanical switches 16a and 16b are set to positions marked as "1", the controller 10

reflects the state of the switches to the first internal register 12a, thereby allowing a

memory card host device to handle the first storage area 11a" (Page 5, paragraph 0069) as

changing the position of a switch to select different memory regions]. See Kim [(Page 3,

Par. 0043-0044 and Figure 1 and related text)].

9.   As per **claim 6**, the combination of Suda and Kim discloses "A method as recited in

claim 5," [**See rejection to claim 5 above**] "wherein the memory card is formatted into either

one of a single volume or a pair of volumes, the pair of volumes being the first volume and the

second volume" [**With respect to this limitation, Suda discloses that "where a judgment is**

made that there is only a single storage area, then normal processing takes place" (Page 3,

paragraph 0033, lines 10-11) as an instance when a memory card is manages as a single

storage area. Suda also discloses that when judgment determines that a plurality of storage

areas exist, then "the memory card switches storage areas so as to refer to a desired storage

area" (Page 3, paragraph 0034, lines 1-3) and explains that "when the area has changed

normally," then "data processing of the memory card by the memory card host device is

performed" (Page 3, paragraph 0035, lines 8-10) as having a plurality of volumes]. See Kim

[(Page 3, Par. 0043-0044 and Figure and related text)]. See Kim [(Page 3, Par. 0043-0044

and Figure 1 and related text)].

10.   As per **claims 7, 10, 17 and 32**, the combination of Suda and Kim discloses "A method

as recited in claims 6, 13 and 28," [**See rejection to claim 6 above and rejection to claims 13**

and 28 bellow] "wherein the total non-volatile data storage for the memory card is formatted

into the first volume of X gigabytes as the single volume, or formatted into the first and second

volumes of X/2 gigabytes each as the pair of volumes" **[Suda discloses this concept as a memory card that can have either a single storage area or a plurality of storage areas wherein "The size thereof does not exceed the marginal capacity which can be handled by a single file system. For example, when the FAT 16 is used as the file system, the marginal capacity is equal to 2 gigabytes. In this event, the marginal capacity of the entire memory card is equivalent to 8 gigabytes when the memory card includes four storage areas as shown in FIG. 1, and is 10 gigabytes when the memory card includes five storage areas or 12 gigabytes when the memory card includes six storage areas" (Page 2, paragraph 0028) as having different memory capacities, depending on the number of partitions/storage areas within a memory card].** See Kim **[(Page 3, Par. 0033, 0043-0044 and Figure 1 and related text)].**

11.   As per **claims 8 and 9**, the combination of Suda and Kim discloses "A method as recited in claim 1," **[See rejection to claim 1 above]** "wherein said method further comprises: (e) detecting activation of the memory card, and wherein said accessing (a), said determining (b), and said operating (c) or (d) are performed once said detecting (e) detects the activation of the memory card" wherein "the activation of the memory card occurs upon power-on of the memory card or upon insertion of the memory card into a host device" **[With respect to this limitation, Suda discloses "a memory card authentication system according to the first embodiment of the present invention includes a memory card host device 1, a memory card 3, and a bus 2 for transmitting and receiving data" (Page 2, paragraph 0026) and also discloses, "the memory card 3 as shown in fig. 4A is in a state where the power supply is turned on. In this**

event, it is possible to handle the first storage area 11a" (Page 4, paragraph 0049)]. See Kim

[(Page 1, Par. 0006 and 0009 and Figure 1 and related text)].

12.   As per **claims 11-12, 15-16 and 30-31**, the combination of Suda and Kim discloses "A

method as recited in claim 1, 13 and 30-31," **[See rejection to claim 1 above]** "when said

determining (b) determines that one volume is present on the memory card, the first volume

having a FAT-32 file format" and "when said determining (b) determines that multiple volumes

are present on the memory card, each of the multiple volumes having a FAT-16 file format"

[Suda teaches this limitation as "when a memory card host device applies a certain file

system and the maximum capacity which the file system can handle is .alpha., then the first

embodiment enables the memory card host device to handle a memory card having a total

capacity larger than .alpha. by having a configuration with plural storage areas each

having a capacity less than .alpha. inside the memory card enabling the handling of a total

capacity larger than .alpha.." (Page 2, paragraph 0025) as teaching a memory that can

adopt any type of file system present in a host device connected to the memory card. Suda

also provides an example in which "FAT 16 is used as the file system" (Page 2, paragraph

0028)].

13.   As per **claims 13-14, 24 and 28-29**, Suda discloses "A memory card capable of being

configured as a single partition of a first size or as multiple partitions of a second size," as ["the

present invention relates to a memory card authentication system, a memory card host

device, a memory card, a storage area switching method, and a storage area switching

program, which are capable of switching plural storage areas" (Page 1, paragraph 0003);

and also teaches that "the memory card host device 1 includes a plural are authentication

module 21 for judging whether or not a memory card subject to exchanging information

has plural storage areas therein" (Figure 1 and Page 2, paragraph 0027, lines 1-4) and

explains that "it is possible to handle a storage capacity larger than the marginal capacity

of the file system by means of providing plural storage areas" (Page 2, paragraph 0030,

lines 1-4)]

"said memory card comprising: non-volatile data storage that provides data storage, said non-

volatile data storage being configured to include at least the single partition and to store partition

information describing at least the single partition is stored;" [Suda discloses this concept as

"Fig. 1 shows the conventional memory card, in which flags are added to conventional

reserved areas" (Page 3, paragraph 0039, lines 1-2) wherein "information indicating the

corresponding storage area number is added hereto" (Page 3, paragraph 0039, lines 12-13)

and "information indicating the quantity of the storage areas is added hereto"(Page 3,

paragraph 0039, lines 25-26)]. Furthermore, Suda discloses ["memory card 3 in which plural

storage areas 11a, 11b, 11c and 11d include internal registers 12a, 12b, 12c and 12d,

respectively" (Page 4, Par. 0051) wherein "In the memory card 3 shown in Fig. 1, a flag

indicating 4 is set to each of the third bit strings of the internal registers 12a, 12b, 12c, and

12d when the memory card 3 has four storage areas" (Page 3, Par. 0039). See (Figures 1

and 4A-4B and related text)]. Applicant should note that Examiner interprets the storage area

comprising both "first storage area 11a" and "first internal register 12a" within memory card 3

shown in Figures 1 and 4a-4b, as the claimed "first volume." Therefore, as Suda stores volume

information indicating the number of storage areas in internal register 12a and this internal

registers are part of the claimed first volume, Suda discloses the above claimed limitation.

"a switch being set in one of a plurality of switch positions;" **[With respect to this limitation, Suda discloses "a large-capacity memory card which is arranged to switch plural storage areas with the use of mechanical switches provided on a housing" (Page 5, paragraph 0068, lines 2-3)]**

"and a controller that manages access to the data stored in said non-volatile data storage," **[Suda discloses this limitation as "the controller 10 receives a command and data from the memory card host device 1 through the bus 2, and controls the storage areas based on the command and the data to the memory card" (Page 2, paragraph 0028, lines 6-9)]**

"wherein said controller examines the partition information stored in said non-volatile data storage to determine whether the single partition or the multiple partitions are being used based on the partition information," **[With respect to this limitation, Suda discloses having "information indicating the quantity of storage areas" (Page 3, paragraph 0039, lines 25-26) and explains that "the memory card host device 1 refers to the reserved areas in accordance with the response from the controller 10 and interprets the flags" (Page 3, paragraph 0040, lines 10-13) which indicate the amount of storage areas being used]**

"wherein when said controller determines that the single partition is used, said non-volatile data storage is addressed as a single volume," **[With respect to this limitation, Suda discloses "where a judgment is made that there is only a single storage area, then normal processing takes place" (Pages 2-3, paragraph 0033, lines 10-11) and explains "in a memory card host device which cannot perform the above-described processing, the memory card remains in the state as shown in Fig. 4A when the power supply is turned on. Accordingly, such a memory card host device handles the memory card as the memory card having only the**

first storage area 11a" (Page 4, Par. 0050); thereby, operating the memory card as having a single volume]

"and wherein when said controller determines that the multiple partitions are being used, said non-volatile data storage is addressed as multiple partitions based on the switch position of said switch" [Suda discloses this limitation as when judgment determines that a plurality of storage areas exist, then "the memory card switches storage areas so as to refer to a desired storage area" (Page 3, paragraph 0034, lines 1-3) and explains that "when the area has changed normally," then "data processing of the memory card by the memory card host device is performed" (Page 3, paragraph 0035, lines 8-10). Suda also discloses "mechanical switches 16a and 16b for selecting one of the plural storage areas, and a controller 10 for reflecting the storage area selected by the mechanical switches" (Page 5, paragraph 0069, lines 1-4)].

To further detail the claimed limitations of "wherein when said controller determines that the single partition is used, said non-volatile data storage is addressed as a single volume," and "and wherein when said controller determines that the multiple partitions are being used, said non-volatile data storage is addressed as multiple partitions based on the switch position of said switch," Kim discloses ["Optionally, the main body 10 further comprises a mode selection switch 15a. Using the mode selection switch 15a, one mode is selected from a single mode and a separate mode. When the single mode is selected, the flash memory card 16a is combined with the flash memory 11a, and the combined memories of the flash memory card 16a and flash memory 11a are recognized as a single drive. Alternatively, when the separate mode is selected, the flash memory card 16a is separated from the flash memory

11a, the flash memory card 16a and the flash memory 11a are respectively recognized as

individual drives. For example, in case the flash memory 11a of the main body 10 is set as a

D drive by the host computer, when the single mode is selected, the flash memory card 16a

is set as the same D drive, thereby extending the capacity of the D drive. On the other

hand, at this time, when the separate mode is selected, the flash memory card 16a is set as

another drive different from the D drive of the flash memory 11a, such as an E drive"

(Page 3, Par. 0043-0044)].

Suda (US 2004/0123059) and Kim et al. (US 2004/0123059) are analogous art because

they are from the same field of endeavor of memory access and control.

At the time of the invention it would have been obvious to a person of ordinary skill in

the art to modify the memory card as described by Suda and have and provided an extended flash

card in which in single mode, both flash cards are seen as a single drive and in separate mode,

each flash card is seen as separate drives as taught by Kim; thereby corresponding to the claimed

single volume and plurality of volumes.

The motivation for doing so would have been because Kim discloses ["it is an object of

the present invention to provide a portable flash memory which is simply connected to a

USB port of a host computer so as to record and erase data, thereby being easy to extend in

its memory capacity... to provide a portable flash memory with extended memory capacity

in which an extended flash memory and a main flash memory are recognized as a single

drive or as individual drives" (Page 1, Pars. 0007-008)].

Therefore, it would have been obvious to combine Suda (US 2004/0123059) with Kim et
al. (US 2004/0123059) for the benefit of creating a method for reading data from a memory card
to obtain the invention as specified in claims 13-14, 24 and 28-29.

14.   As per **claim 18, 25 and 34**, the combination of Suda and Kim discloses "A memory card
as recited in claim 13," **[See rejection to claim 13 above]** "wherein said memory card is a
FLASH memory device" **[With respect to this limitation, Suda discloses that "the memory
card 3 corresponds to a secure digital (SD) memory card" (Page 2, paragraph 0029, lines 1-
2) wherein "a copyright protection function corresponding to the secure digital music
initiative (SDMI) standard, and is upward compatible with a multimedia card (MMC). The
SD memory card is a memory card based on the SDMI standard which has been jointly
developed by three companies Toshiba Corporation, Matsushita Electric Industrial Co.,
Ltd., and SanDisk Corporation" (Page 2, paragraph 0029) and explains addressing the
memory card in block units instead of byte units (Page 4, paragraph 0057), which is
equivalent to having a flash memory card]**. Kim discloses flash memory 11 and flash memory
21 **[(Figure 1 and related text)]**.

15.   As per **claim 19-20, and 22-23**, the combination of Suda and Kim discloses the
limitations required by claims 19-20, and 22-23 which rejected for the same reasons as recited
above for claim 13; further requiring:

"means for accessing volume information from a first volume of non-volatile data storage of said
memory device;" *(page 3, paragraph 0012, lines 7-8 and page 9, paragraph 0043, lines of
applicant's specification identifies this means as "controller 402")* **[With respect to this
limitation, Suda discloses "the controller 10 receives a command and data from the**

memory card host device 1 through the bus 2, and controls the storage areas based on the command and the data to the memory card" (Page 2, paragraph 0028, lines 6-9) and that "information indicating the quantity of storage areas" (Page 3, paragraph 0039, lines 25-26) and explains that "the memory card host device 1 refers to the reserved areas in accordance with the response from the controller 10 and interprets the flags" (Page 3, paragraph 0040, lines 10-13) which indicate the amount of storage areas being used"] "means for determining whether one or multiple volumes are present on said memory device based on the volume information;" *(page 3, paragraph 0012 and page 9, paragraph 0043, lines of applicant's specification identifies this means as "controller 402")* With respect to this limitation, Suda discloses "where a judgment is made that there is only a single storage area, then normal processing takes place" (Pages 2-3, paragraph 0033, lines 10-11)] "and means for operating said memory card based on a configuration of said memory device into the one or multiple volumes that said means for determining determines to be present on said memory device" *(page 9, paragraph 0044, lines 4-6 defines this means as "memory controller 402"*) [Suda discloses this limitation as when judgment determines that a plurality of storage areas exist, then "the memory card switches storage areas so as to refer to a desired storage area" (Page 3, paragraph 0034, lines 1-3) and explains that "when the area has changed normally," then "data processing of the memory card by the memory card host device is performed" (Page 3, paragraph 0035, lines 8-10). Suda also discloses "mechanical switches 16a and 16b for selecting one of the plural storage areas, and a controller 10 for reflecting the storage area selected by the mechanical switches" (Page 5, paragraph 0069, lines 1-4)].

16.   As per **claim 26**, Suda discloses "A method for reading data from a memory card that

provides non-volatile data storage," as ["**the present invention relates to a memory card**

authentication system, a memory card host device, a memory card, a storage area

switching method, and a storage area switching program, which are capable of switching

plural storage areas" (Page 1, paragraph 0003)]

"said method comprising: (a) accessing a switch position of a switch on the memory card; (b)

determining whether one or multiple volumes are present on the memory card based on the

switch position;" [**With respect to this limitation, Suda discloses "It is possible to select any**

one of the storage areas 11a and 11b of the memory card 3 by use of the mechanical

switches 16a and 16b provided on the housing of the memory card 3. For example, when

the mechanical switches 16a and 16b are set to positions marked as "1", the controller 10

reflects the state of the switches to the first internal register 12a, thereby allowing a

memory card host device to handle the first storage area 11a" (Page 5, paragraph 0069) as

changing the position of a switch to select different memory regions. Suda also provides an

example as "when the mechanical switches 16a and 16b are set to positions marked as "1",

the controller 10 reflects the state of the switches to the first internal register 12a, thereby

allowing a memory card host device to handle the first storage area 11a" (Page 5,

paragraph 0069, lines 6-9)]

"(c) operating the memory card as providing only the first volume when said determining (b)

determines that one volume is present on the memory card, the non-volatile data storage of the

memory card being assigned to the one volume[**With respect to this limitation, Suda discloses**

"where a judgment is made that there is only a single storage area, then normal processing

takes place" (Pages 2-3, paragraph 0033, lines 10-11) and explains "in a memory card host

device which cannot perform the above-described processing, the memory card remains in

the state as shown in Fig. 4A when the power supply is turned on. Accordingly, such a

memory card host device handles the memory card as the memory card having only the

first storage area 11a" (Page 4, Par. 0050); thereby, operating the memory card as having a

single volume]

"and (d) operating the memory card as providing a plurality of volumes when said determining

(b) determines that multiple volumes are present on the memory card, one of the plurality of

volumes being the first volume, and the non-volatile data storage being divided amongst the

plurality of volumes" [Suda discloses this limitation as when judgment determines that a

plurality of storage areas exist, then "the memory card switches storage areas so as to refer

to a desired storage area" (Page 3, paragraph 0034, lines 1-3) and explains that "when the

area has changed normally," then "data processing of the memory card by the memory

card host device is performed" (Page 3, paragraph 0035, lines 8-10)].

To further detail the claimed limitations of "(c) operating the memory card as providing

only the first volume when said determining (b) determines that one volume is present on the

memory card, the non-volatile data storage of the memory card being assigned to the one

volume" and "and (d) operating the memory card as providing a plurality of volumes when said

determining (b) determines that multiple volumes are present on the memory card, one of the

plurality of volumes being the first volume, and the non-volatile data storage being divided

amongst the plurality of volumes," Kim discloses ["Optionally, the main body 10 further

comprises a mode selection switch 15a. Using the mode selection switch 15a, one mode is

selected from a single mode and a separate mode. When the single mode is selected, the flash memory card 16a is combined with the flash memory 11a, and the combined memories of the flash memory card 16a and flash memory 11a are recognized as a single drive. Alternatively, when the separate mode is selected, the flash memory card 16a is separated from the flash memory 11a, the flash memory card 16a and the flash memory 11a are respectively recognized as individual drives. For example, in case the flash memory 11a of the main body 10 is set as a D drive by the host computer, when the single mode is selected, the flash memory card 16a is set as the same D drive, thereby extending the capacity of the D drive. On the other hand, at this time, when the separate mode is selected, the flash memory card 16a is set as another drive different from the D drive of the flash memory 11a, such as an E drive" (Page 3, Par. 0043-0044)].

Suda (US 2004/0123059) and Kim et al. (US 2004/0123059) are analogous art because they are from the same field of endeavor of memory access and control.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify the memory card as described by Suda and have and provided an extended flash card in which in single mode, both flash cards are seen as a single drive and in separate mode, each flash card is seen as separate drives as taught by Kim; thereby corresponding to the claimed single volume and plurality of volumes.

The motivation for doing so would have been because Kim discloses ["it is an object of the present invention to provide a portable flash memory which is simply connected to a USB port of a host computer so as to record and erase data, thereby being easy to extend in its memory capacity... to provide a portable flash memory with extended memory capacity

in which an extended flash memory and a main flash memory are recognized as a single drive or as individual drives" (Page 1, Pars. 0007-008)].

Therefore, it would have been obvious to combine Suda (US 2004/0123059) with Kim et al. (US 2004/0123059) for the benefit of creating a method for reading data from a memory card to obtain the invention as specified in claims 26.

17.   As per **claim 27, 33 and 35**, the combination of Suda and Kim discloses a method as recited in claim 26, "wherein the switch has three-positions" or "N+1 switch positions" **[With respect to this limitation, Suda discloses "mechanical switches 16a and 16b for selecting one of the plural storage areas, and a controller 10 for reflecting the storage area selected by the mechanical switches 16a and 16b to an internal register 12a. It is possible to select any of the storage areas 11a and 11b of the memory card 3 by use of the mechanical switches 16a and 16b provided on the housing of the memory card 3" (Page 5, paragraph 0069, lines 1-9); therefore, the switch as provided in the invention may have a plurality of positions, including three or more].** See Kim [(Page 2, Par. 0033 and Pars. 0043-0044)].

ACKNOWLEDGMENT OF ISSUES RAISED BY THE APPLICANT

Response to Amendment

18.   Applicant's arguments filed on February 9, 2007 (Page 9, lines 12-17) have been fully considered but they are moot in view of new grounds of rejection.

19.   Applicant's arguments filed on February 9, 2007 remarking that Suda does not disclose that the volume information is stored within the volume itself have been fully considered but are not persuasive.

ARGUMENTS CONCERNING PRIOR ART REJECTIONS

20.   Claims must be given the broadest reasonable interpretation during examination and limitations appearing in the specification but not recited in the claim are not read into the claim (See M.P.E.P. 2111 [R-1]).

FIRST POINT OF ARGUMENT

21.   In page 9, lines 12-17, Applicant points out "In contrast, Suda describes a memory card that can have a plurality of storage areas, The memory card is able to switch between the plurality of storage areas so that the memory card can utilize a storage capacity larger than the marginal capacity of the file system, That is, given the plurality of storage areas, memory card in Suda merely selects one of the storage areas to be utilized at a given point in time. The sum of the capacities of the plurality of storage areas is the total capacity of the memory card."

In response, the Examiner would like to respectfully point out that the Applicant has merely identified what Suda discloses and has failed to identify a specific claimed limitation which Applicant believes is not taught by Suda.

According to the broadest reasonable interpretation given to the claims, he Examiner believes Suda discloses the limitations as claimed in claims 1-35; however, in light of the specification and to further detail Suda, the Examiner has added the reference to Kim et al. [See rejection to the claims above].

SECOND POINT OF ARGUMENT

22.   Regarding Applicant's remark that Suda does not disclose that the volume information is stored within the volume itself; the Examiner disagrees and would like to point out that Suda

discloses this limitation as Suda discloses ["**memory card 3 in which plural storage areas 11a,**

11b, 11c and 11d include internal registers 12a, 12b, 12c and 12d, respectively" (Page 4,

Par. 0051) wherein "In the memory card 3 shown in Fig. 1, a flag indicating 4 is set to each

of the third bit strings of the internal registers 12a, 12b, 12c, and 12d when the memory

card 3 has four storage areas" (Page 3, Par. 0039). See (Figures 1 and 4A-4B and related

text)]. Applicant should note that Examiner interprets the storage area comprising both "first

storage area 11a" and "first internal register 12a" within memory card 3 shown in Figures 1 and

4a-4b, as the claimed "first volume." Therefore, as Suda stores volume information indicating

the number of storage areas in internal register 12a and this internal registers are part of the

claimed first volume, Suda discloses "accessing volume information stored in a first volume of

non-volatile data storage."

23.   All arguments by the applicant are believed to be covered in the body of the office action

or in the above remarks and thus, this action constitutes a complete response to the issues raised

in the remarks dated February 9, 2007.

CLOSING COMMENTS

Examiner's Note

24.   Examiner has cited particular columns and line numbers in the references as applied to

the claims above for the convenience of the applicant. Although the specified citations are

representative of the teachings in the art and are applied to the specific limitations within the

individual claim, other passages and figures may apply as well. It is respectfully requested from

the applicant, in preparing the responses, to fully consider the references in entirety as potentially

teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

STATUS OF CLAIMS IN THE APPLICATION

25.   The following is a summary of the treatment and status of all claims in the application as recommended by **M.P.E.P. § 707.07(i)**:

a(1) CLAIMS REJECTED IN THE APPLICATION

26.   Per the instant office action, **claims 1-35** have received a first action on the merits and are subject to a non-final rejection.

27.   For at least the above reasons it is the examiner's position that the applicant's claims are not in condition for allowance.

DIRECTION OF ALL FUTURE REMARKS

28.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yaima Campos whose telephone number is (571) 272-1232. The examiner can normally be reached on Monday to Friday 8:30 AM to 5:00 PM.

IMPORTANT NOTE

29.   If attempts to reach the above noted Examiner by telephone are unsuccessful, the Examiner's supervisor, Mr. Sanjiv Shah, can be reached at the following telephone number: Area Code (571) 272-4098.

30.   The fax phone number for the organization where this application or proceeding is

assigned is 571-273-8300. Information regarding the status of an application may be obtained

from the Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through Private PAIR only. For more

information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions

on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-

9197 (toll-free).

April 19, 2007   Yaima Campos
                                                                     Examiner
                                                                     Art Unit 2185

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